

Notice of Allowability

Application No.

09/505,803

Applicant(s)

ARNOLD, JAMES E

Examiner

Eric B. Compton

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an Appeal Brief filed 1/2/04.
2. ☒ The allowed claim(s) is/are 17-23 and 25-36.
3. ☒ The drawings filed on 17 February 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other Remarks.

DETAILED ACTION

Remarks

Applicant's Appeal Brief filed January 2, 2004, has been fully considered.

An Appeals Conference was held on June 30, 2004. Participants found Applicant's arguments persuasive, and agreed the case should not go to the Board of Patents Appeals and Interferences. It was further agreed upon that the case should be returned to the Examiner for further search and consideration of the pending claims.

Prior Art References

The newly-found prior art references listed on the enclosed PTO-892, but not used in a rejection of the claims, are cited for their teachings of coating and hot isostatic pressing.

EP 0 005 285 (SKF TRADING BV) broadly discloses a method for applying ceramic layers to metal substrates, by a flame spraying process and applying a hot isostatic pressing step to densify the coating and improve adhesion to the substrate. However, the reference does not disclose that the substrate has a cutting edge, nor that substrate retains the wear resistant coating material on the cutting edge portion during a sharpening process of the cutting edge portion.

JP 59-050177 (KOBELITE LTD) broadly discloses providing a hot isostatic pressing step to perform a diffusion bonding of a coating film to a metal substrate. However, the reference does not disclose that the substrate has a cutting edge, nor that

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substrate retains the wear resistant coating material on the cutting edge portion during a sharpening process of the cutting edge portion.

U.S. Pat. 5,297,746 to McBride et al. notes, with respect to the prior art, Col. 2, lines 20-29, hot isostatic pressing to bond a composite ceramic material insert to a cutting edge. However, the reference does not teach or suggest applying the composite material by a high-density coating process, such as by flame spraying, as claimed by Applicant.

U.S. Pat. 5,422,140 to Collin discloses a ceramic cutting insert having a wear resistant coating. To increase the adhesion of the coating to the ceramic body a hot isostatic pressing step is performed. The coating is used to prevent "a strong chemical reaction which occurs between the iron in the steel and the silicon carbide whiskers in the cutting insert at the high temperatures produced at the cutting edge during machining." Col. 1, lines 20-23. However, the reference does not disclose a metal substrate nor that substrate retains the wear resistant coating material on the cutting edge portion during a sharpening process of the cutting edge portion. Furthermore, unlike Applicant's invention, the ceramic body is coated with a low-density process, e.g., CVD, rather than by a high-density process.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter B. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric Compton
Patent Examiner
A/U 3726